ENVIRONMENTAL COMPLIANCE SUMMARY

CALENDAR YEAR 2000

Compliance Program

The West Valley Demonstration Project (WVDP) is currently focusing on several goals that will lead to eventual site closure. Processing of the high-level liquid waste into durable, solid glass is almost complete, and the WVDP is now working on removing and vitrifying residual radioactivity remaining in the high-level waste tanks. In addition, the WVDP is shipping low-level waste, constructing a remote-handled waste facility, actively managing on-site groundwater contamination, preparing for the shipment of spent nuclear fuel, and cleaning up facilities not presently used in anticipation of eventual closure.

The activities in progress at the WVDP are regulated by various federal and state laws that protect the public, workers, and the environment.

The U.S. Department of Energy (DOE), the federal agency that oversees the WVDP, established its policy concerning environmental protection in DOE Order 5400.1, General Environmental Protection Program. This Order lists the regulations, laws, and required reports that are applicable to DOE-operated facilities. DOE Order 5400.1 and DOE Order 231.1, Environment, Safety, and Health Reporting, require the preparation of this annual site environmental report, which is intended to summarize environmental data gathered during the calendar year, describe significant environmental programs, and document WVDP compliance with environmental regulations.

The major federal environmental laws and regulations that apply to the West Valley Demonstration Project are the Resource Conservation and Recovery Act, the Clean Air Act, the Emergency Planning and Community Right-to-Know Act, the Clean Water Act, the Safe Drinking Water Act, the Toxic Substances Control Act, and the National Environmental Policy Act. These laws are administered primarily by the U.S. Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC) through state programs and regulatory requirements such as permitting, reporting, inspecting, and self-auditing.

In addition, because the emission of radiological and nonradiological materials from an active facility cannot be completely prevented, the EPA, NYSDEC, and the DOE have established standards for such emissions that are intended to protect human health and the environment. The WVDP applies to NYSDEC and the EPA for permits that allow the site to release limited amounts of radiological and nonradiological constituents through controlled and monitored discharges into water and air in concentrations that have been determined to be safe for humans and the environment. In general, the permits describe the discharge points, specify management and reporting requirements, list the limits on those pollutants likely to be present, and define the sampling and analysis schedule.

A summary of permits may be found on pp. ECS-22 through ECS-23.

Environmental inspections and audits are conducted routinely by the EPA, NYSDEC, the New York State Department of Health (NYSDOH), and the Cattaraugus County Health Department. On-site and off-site radiological monitoring in 2000 confirmed that site activities were conducted well within state and federal regulatory requirements. On-site nonradiological effluent monitoring confirmed that site effluents remained within permitted limits.

Management at the WVDP continued to provide strong support for environmental compliance in 2000.

The WVDP has implemented an integrated safety management system (ISMS) to control work processes at all levels. Through the ISMS, DOE Orders and applicable state and federal environmental statutes and regulations are integrated into work activities, demonstrating a commitment to protecting WVDP employees, the public, and the environment while working toward the WVDP goals.

Compliance Status

The following environmental compliance summary describes the federal and state laws and regulations that are applicable to the WVDP and the relevant environmental compliance activities that occurred at the WVDP during calendar year 2000.

Resource Conservation and Recovery Act (RCRA). The Resource Conservation and Recovery Act was enacted to ensure that hazardous wastes are managed in a manner that protects human health and the environment. RCRA and its implementing regulations govern the generation, treatment, storage, and disposal of hazardous waste. RCRA regulations mandate that generators take responsibility for ensuring the proper treatment, storage, and disposal of their wastes. The EPA is the federal agency responsible for issuing guidelines and regulations for the proper management of solid and hazardous waste (including mixed waste).

In New York, the EPA has delegated the authority to enforce these regulations to NYSDEC. In addition, the U.S. Department of Transportation (DOT) is responsible for issuing guidelines and regulations for the labeling, packaging, and spill-reporting provisions for hazardous and mixed wastes while in transit.

A Part A Permit Application (for interim status) is required for a facility that treats or stores large quantities of hazardous waste for more than 90 days or disposes of hazardous waste at that facility. The facility must apply for a permit from the EPA (or authorized state). The Part A Permit Application defines the treatment

processes to be used, the design capacities, the location of hazardous waste storage units, the design and operating criteria for disposal units, and the hazardous wastes to be managed.

In 1984 the DOE notified the EPA of hazardous waste activities at the WVDP and identified the WVDP as a generator of hazardous waste. In June 1990 the WVDP filed a RCRA Part A Hazardous Waste Permit Application with NYSDEC for storage and treatment of hazardous wastes and has been operating under interim status since then.

The WVDP updates its RCRA Part A Permit Application as changes to the site's interim-status waste-management operations occur. The permit application was updated in October 1995; a further update was developed in 2000 and submitted to NYSDEC in early 2001.

Hazardous Waste Management Program. Hazardous wastes at the WVDP are managed in accordance with 6 NYCRR (New York Official Compilation of Codes, Rules, and Regulations) Parts 370-374 and 376. In order to dispose of hazardous wastes generated from on-site activities, the WVDP uses New York State-permitted transporters (pursuant to 6 NYCRR Part 364) to ship RCRA-regulated wastes to permitted or authorized treatment, storage, or disposal facilities (TSDFs). Using these services, the WVDP shipped approximately 1.79 metric tons (1.97 tons) of nonradioactive hazardous waste to off-site TSDFs in 2000.

Off-site hazardous waste shipments and their receipt at designated treatment, storage, or disposal facilities are documented by signed manifests that accompany the shipment. If the signed manifest is not returned to the WVDP within the regulatory limit of forty-five days from shipment, an exception report must be filed and receipt of the waste confirmed with the TSDF. No exception reports for WVDP waste shipments were required to be filed in 2000. One exception report was filed in February 2001 for a shipment in 2000.

Hazardous waste activities must be reported to NYSDEC every year through the submittal of the facility's annual Hazardous Waste Report. This report summarizes the hazardous waste activities for the previous year, specifies the quantities of waste generated, treated, and/or disposed, and identifies the TSDFs used. The annual Hazardous Waste Report for calendar year 2000 was submitted to NYSDEC by March 1, 2001.

In addition, a hazardous waste reduction plan must be filed every two years and updated annually. This plan documents efforts to minimize the generation of hazardous waste and was first submitted to NYSDEC in 1990. The most recent Annual Status Report for the Hazardous Waste Reduction Program was updated in June 2000. The next update is due in July 2001.

An annual inspection to assess compliance with hazardous waste regulations was conducted by NYSDEC on March 31, 2000, and April 17, 2000. No deficiencies were noted.

Nonhazardous, Regulated Waste Management Program. The WVDP shipped approximately 50 metric tons (55 tons) of nonradioactive, nonhazardous material off-site to solid waste management facilities in 2000. Of this amount, 3.1 metric tons (3.4 tons) were recycled or reclaimed. Some of the recycled materials were lead-acid batteries, nonhazardous oils such as motor oil, hydraulic oil, and compressor oil, and spent lamps, which were recycled at off-site authorized reclamation and recycling facilities. Lead-acid batteries and spent lamps are

managed as universal wastes. (See Glossary.) The WVDP also shipped approximately 1,810 metric tons (1,990 tons) of digested sludge and untreated wastewater from the site sanitary and industrial wastewater treatment facility to the Buffalo Sewer Authority for treatment.

Mixed Waste Management Program. Mixed waste contains both a radioactive component, regulated under the Atomic Energy Act, and a hazardous component, regulated under RCRA. Both the EPA and NYSDEC oversee mixed waste management at the WVDP.

In March 1993 the DOE entered into a Federal and State Facility Compliance Agreement (FSFCA) with the EPA, NYSDEC, the New York State Energy Research and Development Authority (NYSERDA), and West Valley Nuclear Services Company (WVNS), the primary contractor for the DOE at the WVDP. The FSFCA addressed requirements for managing the hazardous component of the mixed waste, storage requirements for mixed waste, and characterization of historical wastes in storage at the WVDP. Characterization of historical wastes was completed and the FSFCA terminated on March 22, 1999.

The Federal Facility Compliance Act (FFC Act) of 1992, an amendment to RCRA, required DOE facilities to prepare plans for treating their mixed waste inventories and to update these plans annually to account for development of treatment technologies, capacities, and changes in mixed waste inventories. Each plan was approved by the respective state agency or the EPA after consultation with other affected states and after consideration of public comments.

The WVDP's plan comprises two volumes: The Background Volume provides information on each mixed waste stream and information on the preferred treatment method for the waste. The Plan Volume contains proposed schedules for treating the mixed waste to meet the land disposal restriction (LDR) requirements of RCRA.

The DOE and NYSDEC entered into a consent order on September 3, 1996 that requires the completion of the milestones identified in the Plan Volume. The WVDP began implementing its site treatment plan immediately and updates it annually to bring waste stream, inventory, and treatment information current to September 30, the end of the DOE fiscal year. An update of fiscal year 2000 activities was completed and submitted to NYSDEC in October 2000. All Plan Volume milestones for 2000 were met.

Shipments of mixed waste to off-site facilities for treatment and their receipt at the designated TSDF are documented via manifests. In 2000 the WVDP shipped approximately 5.62 metric tons (6.20 tons) of mixed waste to an off-site facility.

RCRA §3008(h) Administrative Order on Consent. The DOE and NYSERDA entered into a RCRA §3008(h) Administrative Order on Consent with NYSDEC and the EPA in March 1992. The Consent Order required NYSERDA and the DOE's West Valley Demonstration Project Office (OH/WVDP) to conduct RCRA-facility investigations (RFIs) at solid waste management units (SWMUs) in order to determine if there had been a release or if there is a potential for release of RCRA-regulated hazardous constituents from SWMUs. The final RFI reports were submitted in 1997, completing the investigative activities associated with the Consent Order. As a result of the RFIs, no corrective actions were required. Groundwater monitoring as specified in the RFI reports continued during 2000. The WVDP also continued to monitor SWMUs and to comply with the re-

quirements of the RCRA §3008(h) Administrative Order on Consent. (Monitoring results are detailed in Chapter 3.)

Waste Minimization and Pollution Prevention. The WVDP continued a long-term program to minimize the generation of low-level radioactive waste, mixed waste, hazardous waste, industrial waste, and sanitary waste and to promote affirmative procurement as directed by Executive Order 13101 (Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition) and Executive Order 13148 (Greening the Government Through Leadership in Environmental Management), which promote the Affirmative Procurement Program and RCRA §6002. The Affirmative Procurement Program specifies responsibilities and direction for federal agencies in acquiring recycled and environmentally preferable products and services designated by the EPA in 40 CFR Part 247. WVNS reports its challenges and successes associated with the purchase and use of these materials and services to the DOE each year.

On-site waste streams are separated into either waste from sources directly associated with the vitrification process or into other nonvitrification sources.

The WVDP set the following cumulative nonvitrification waste-reduction goals for 2000: an 85% reduction in the generation of low-level radioactive waste, a 70% reduction in the generation of mixed waste, a 40% reduction in the generation of nonvitrification hazardous waste, a 53% reduction in the generation of nonvitrification industrial waste, and a 65% reduction in the generation of sanitary waste, compared to an annualized 1993 total of waste generated. The waste-reduction goals for wastes associated with vitrification operations were a 95% reduction in vitrification hazardous wastes and an 18% reduction in vitrification industrial waste, compared to an annualized 1996 total of waste generated.

All but one of these goals were met or exceeded during calendar year 2000. Low-level radioactive waste generation was reduced by 73%, missing the established goal of 85%. Mixed waste generation was reduced by 86%, nonvitrification hazardous waste by 40%, vitrification hazardous waste by more than 99%, nonvitrification industrial waste by 78%, vitrification industrial waste by 94%, and sanitary wastes by 83%. (See Chapter 1, pp.1-17 through 1-18, for more detailed information concerning waste minimization.)

Underground Storage Tanks Program. RCRA regulations also cover the use and management of underground storage tanks and establish minimum design requirements in order to protect groundwater resources from releases. The regulations, specified in 40 CFR Part 280, require underground storage tanks to be equipped with overfill protection, spill prevention, corrosion protection, and leak detection systems. New tanks must comply with regulations at the time of installation.

New York State also regulates underground storage tanks through two programs, petroleum bulk storage (6 NYCRR, Parts 612 — 614) and chemical bulk storage (6 NYCRR, Parts 595 — 599). The state registration and minimum design requirements are similar to those of the federal program except that petroleum tank fill ports must be color-coded using American Petroleum Institute standards to indicate the product being stored.

A 550-gallon double-walled steel underground storage tank, upgraded in 1998 to bring it into compliance with the most recent EPA requirements (40 CFR Part 280.21), is used to store

diesel fuel for the supernatant treatment system ventilation blower system. This tank is equipped with aboveground piping, an upgraded interstitial leak detection system, and a high-level warning device. This is the only underground petroleum-storage tank currently in use at the WVDP.

A former underground petroleum-storage tank, closed in place before the New York State underground storage tank program closure requirements were implemented in 1985,was removed in 1997. Testing of soils from the tank excavation had shown evidence of earlier petroleum leakage, and on March 19, 1999 the DOE and NYSDEC executed a Stipulation Agreement Pursuant to Section 17-0303 of the Environmental Conservation Law and Section 176 of the Navigation Law for mitigation of the petroleum contamination.

A bioventing system, installed in August 1999 to remediate localized petroleum-contaminated soils, stimulates natural in situ biodegradation of petroleum hydrocarbons in the soil by providing an abundant oxygen supply to existing soil microorganisms within the contaminated soil zone.

This system is scheduled to operate for two years and was operated continuously in 2000, except during any necessary maintenance. It is checked daily by site operations personnel, and the combined effluent airflow from the extraction wells is monitored weekly for total volatile organic compounds (VOCs) using a photoionization detector.

The system was assessed in August 2000. Results of this assessment indicated that the system is meeting its intended purpose of providing an oxygen supply to stimulate biodegradation of contaminants present in the subsurface soils. A report was transmitted to NYSDEC in September 2000.

There are no underground bulk chemical storage tanks at the WVDP.

New York State-regulated Aboveground Storage Tanks. The state of New York regulates aboveground petroleum bulk storage under 6 NYCRR Parts 612, 613, and 614, and aboveground hazardous bulk chemical storage under 6 NYCRR Part 595 et seq. These regulations require secondary containment, external gauges to measure the current reserves, monthly visual inspections of petroleum tanks, and documented daily, annual, and five-year inspections of chemical tanks. Documentation relating to these periodic inspections is maintained by the WVDP and is available for regulatory agencies to review. Petroleum tank fill ports also must be color-coded and chemical tanks must be labeled to indicate the product stored.

WVDP registration at the end of 2000 included nine aboveground petroleum tanks and eleven aboveground chemical storage tanks. Three of the petroleum tanks contain No. 2 fuel oil, one contains unleaded gasoline, and the remainder contain diesel fuel. The Quality Assurance department inspects the aboveground petroleum tanks every month.

Nine of the chemical storage tanks are used as needed to contain nitric acid or nitric acid mixtures. Sodium hydroxide and anhydrous ammonia are stored in the remaining two tanks. All of the tanks are equipped with gauges and secondary containment systems except the anhydrous ammonia tank, which does not require secondary containment. (Any release of the contents of the anhydrous ammonia tank would be in gas-

eous form; thus, secondary containment is unnecessary.) The WVDP is in compliance with requirements to upgrade chemical bulk storage tanks that went into effect in December 1999.

Medical Waste Tracking. Medical waste poses a potential for humans to be exposed to infectious diseases and pathogens from contact with human bodily fluids. Medical evaluations, inoculations, and laboratory work at the on-site nurse's office regularly generate potentially infectious medical wastes that must be tracked in accordance with NYSDEC requirements (6 NYCRR Part 364.9).

The WVDP has retained the services of a permitted waste hauler and disposal firm to manage these medical wastes. Medical wastes are sterilized with an autoclave by the disposal firm to remove the associated hazard and then disposed. Fifteen kilograms (34 lbs) of medical waste consisting of dressings, protective clothing such as rubber gloves, and needles, syringes, and other sharps were generated and disposed in 2000.

Clean Air Act (CAA). The Clean Air Act, including Titles I through VI, establishes a framework for the EPA to regulate air emissions from both stationary and mobile sources. These amendments mandate that each state establish a program to permit the operation of sources of air pollution. In 1996 NYSDEC amended 6 NYCRR Parts 200, 201, 231, and 621 to implement the requirements of the new EPA Clean Air Act Title V permitting processes.

In New York State, either the EPA or NYSDEC issues permits for stationary sources that emit regulated pollutants, including hazardous air pollutants. Sources requiring permits are those that emit regulated pollutants from a particular source (e.g., a stack, duct, vent, or other similar opening) if the pollutants are in quantities above a predetermined threshold. WVDP radiological emissions are regulated by the EPA. All other air pollutants are regulated by NYSDEC.

Air emissions of radionuclides from point sources at the WVDP are regulated by the EPA under the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations, 40 CFR Part 61, Subpart H, National Emission Standards for Emission of Radionuclides Other Than Radon From Department of Energy Facilities. The WVDP currently has permits for six radionuclide sources, including the slurry-fed ceramic melter and the vitrification heating, ventilation, and air conditioning (HVAC) system. Other less significant sources of radionuclide emissions, such as those from the on-site laundry, do not require permits.

Non-point radiological sources of air emissions such as lagoons also do not require permits. Emissions from all these sources are quantified for reporting to the EPA. The WVDP reports the radionuclide emissions from its non-permitted and permitted sources to the EPA annually in accordance with NESHAP regulations. Calculations to demonstrate compliance with NESHAP radioactive dose limits showed calendar year 2000 doses to be less than 0.1% of the 10 millirem standard. (See Table 4-2 [p.4-6].)

Nonradiological point sources of air emissions are regulated by NYSDEC. Major-source facilities are required by 6 NYCRR Part 201 to file a Title V Permit Application, unless operating limits are established, to ensure that the facility does not emit pollutants above the threshold limits. The WVDP demonstrated that emissions of nitrogen oxides (NO_x) and sulfur

dioxide (SO_2) were each below the threshold limit of 100 tons per year. Thus, the WVDP is not required to file a Title V permit.

The WVDP opted to file a State Facility Permit Application for the site. A State Facility Permit modification to incorporate sitewide air emission sources was submitted in December 1997 and approved June 1, 2000. Annual NO_x and SO_2 emissions under the updated permit are capped at 99 tons each. A compliance assessment in June 2000 verified that all conditions of this permit were being met.

The permit describes the conditions of the NO_x and SO_2 capping plan and the operational conditions for the boilers, melter, cold chemical facility, and the vitrification HVAC system. In July 1999 NYSDEC granted the WVDP a waiver of quarterly submissions of NO_x and SO_2 emission totals. The WVDP is required to submit only an annual certification, in January, that contains NO_x and SO_2 emission totals. The 2000 certification reported 7.44 tons of NO_x and 0.77 tons of SO_2, which were well below the 99-ton cap for each category.

The WVDP also conducts cylinder gas audits every quarter but is no longer required to conduct relative accuracy test audits of the melter off-gas NO_x analyzers.

The air permits that were in effect at the WVDP in 2000 are included on the West Valley Demonstration Project Environmental Permits table (pp. ECS-22 through 23). There were no air permit or regulatory exceedances in 2000. (See also the West Valley Demonstration Project 2000 Air Quality Noncompliance Episodes table on p. ECS-20.)

Emergency Planning and Community Right-to-Know Act (EPCRA). The Emergency Planning and Community Right-to-Know Act was enacted as Title III of the Superfund Amendments and Reauthorization Act (SARA). EPCRA was designed to create a working partnership between industry, business, state and local governments, public health and emergency response representatives, and interested citizens. EPCRA is intended to address concerns about the effects of chemicals used, stored, and released in local communities.

Executive Order 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements, requires all federal agencies to comply with the following EPCRA provisions: planning notification (Sections 302—303), extremely hazardous substance (EHS) release notification (Section 304), material safety data sheet (MSDS)/chemical inventory (Sections 311—312), and toxic release inventory (TRI) reporting (Section 313). The WVDP continued to comply with these provisions in 2000. (See also the EPCRA Compliance Chart on p. ECS-21.)

• WVDP representatives participated in semiannual meetings of the Cattaraugus County Local Emergency Planning Committee (EPCRA Sections 302—303). WVDP representatives also attended meetings held by the Cattaraugus and Erie County Emergency Management Services concerning WVDP and other local emergency planning activities. Area hospitals and the West Valley Volunteer Hose Company continued to participate in on-site training drills and in information exchanges concerning hazardous-substance management at the WVDP.

• Compliance with all EPCRA reporting requirements was maintained and all required reports were submitted within the required time frame. There were no releases of extremely hazardous substances (EHS) at the WVDP that triggered the release notification requirements of Section 304 of EPCRA.

• Under EPCRA Section 311 requirements, the WVDP reviews information about reportable chemicals every quarter. If a hazardous chemical, which was not previously reported, is present on-site in an amount exceeding the threshold planning quantity, an MSDS and an updated hazardous chemical list are submitted to the state and local emergency response groups. This supplemental reporting ensures that the public and the emergency responders have current information about hazardous chemicals at the WVDP. No new chemicals were added to the hazardous chemicals list in 2000 and no additional EPCRA Section 311 notifications were required.

• Under EPCRA Section 312 regulations, the WVDP submits annual reports to state and local emergency response organizations and fire departments that specify the quantity, location, and hazards associated with chemicals stored on-site. Seventeen reportable chemicals above threshold planning quantities were stored at the WVDP in 2000. (A list of reportable chemicals is provided on p. ECS-21.)

• Under EPCRA Section 313 the WVDP provides information about releases to all environmental media of EPA-listed Toxic Release Inventory (TRI) chemicals that are used at or above specified regulatory thresholds at the WVDP. TRI reports are filed for the preceding year. In 1999 the WVDP used one TRI chemical above the regulatory threshold amount of 10,000 lbs: nitric acid. Thus, the TRI report for this chemical was filed with the EPA in 2000.

Clean Water Act (CWA). Section 404 of the CWA regulates the development of areas in and adjacent to the waters of the United States. Supreme Court interpretations of Section 404 have resulted in the inclusion of certain non-isolated wetlands in the regulatory definition of waters of the United States. Section 404 regulates the disposal of solids, in the form of dredged or fill material, into these areas by granting the U.S. Army Corps of Engineers the authority to designate disposal areas and issue permits for these activities. Executive Order 11990, Protection of Wetlands, directs federal agencies to "avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practical alternative." (Article 24 of the New York State Environmental Conservation Law also contains requirements for the protection of freshwater wetlands.)

In addition, Section 401 of the CWA requires applicants for a federal license or permit pursuant to Section 404 to obtain certification from the state that the proposed discharge complies with effluent and water quality-related limitations, guidelines, and national standards of performance identified under sections 301, 302, 303, 306, 307, and 511(c) of the CWA. The EPA has delegated administration of this program to New York State.

Wetlands. Jurisdictional wetlands are defined in Clean Water Act Section 404 as those satisfying specific technical criteria related to vegetation, soils, and hydrologic conditions. The WVDP notifies the U.S. Army Corps of Engineers and NYSDEC of proposed actions that could affect wetland units not specifically exempted from regulation or notification.

A wetlands assessment in August 1998 identified and delineated jurisdictional wetlands regulated under the Clean Water Act, Section 404, and/or those wetlands that may be regulated by the state of New York under Article 24 of the Environmental Conservation Law. The 375-acre (152-hectare) assessment area covered a portion of the Western New York Nuclear Service

Center (WNYNSC), including the entire 200-acre (89-hectare) WVDP and adjacent parcels north, south, and east of the WVDP premises. The assessment also supported the requirements of Executive Order 11990, Protection of Wetlands, and updated a 1993 investigation. Fifty-nine jurisdictional wetlands ranging in size from 0.01 acres to 8.6 acres, a total of approximately 39 acres (16 hectares) of wetland, were identified. This wetland delineation was submitted to the U.S. Army Corps of Engineers for verification of the wetland boundaries. Verification was obtained in November 1999.

Additional jurisdictional wetlands in a 150-ft corridor along both sides of the railroad spur from the southern fenced boundary of the Project premises to the intersection with Fox Valley Road were assessed in August and September 1999. Twenty-three separate wetland units ranging in size from 0.01 acres to 4.7 acres, a total of approximately 12 acres (5 hectares), were identified.

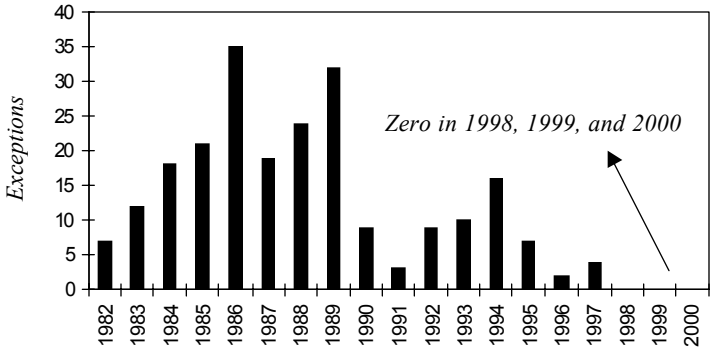
In December 1999 a Joint Application for Permit was submitted to NYSDEC and the U.S. Army Corps of Engineers for activities in Buttermilk Creek and in or near the wetlands associated with the railroad spur. These activities included repairs to the culvert that carries the railroad over Buttermilk Creek and improvements to portions of the railside storm water drainage system. In April 2000 an Individual Dredge and Fill Permit was obtained from the Army Corps of Engineers and a Water Quality Certification and Freshwater Wetlands permit was obtained from NYSDEC for these activities.

An additional wetland unit at the foot of the Lake No. 1 dam was delineated in August 2000 to verify permitting requirements for improvements to the dam. NYSDEC and the Corps of Engineers reviewed the wetland mapping and the associated information and subsequently determined that these improvements were not within their permitting jurisdiction. The improvements were initiated in October 2000. The purpose of the railroad spur and dam improvements was to facilitate off-site shipment of spent nuclear fuel, which began during the first half of 2001.

Storm Water Discharge Permit. Section 402 of the Clean Water Act of 1972 generally regulates disposal of liquids and, as amended, authorizes the EPA to regulate discharges of pollutants to surface water through a National Pollutant Discharge Elimination System (NPDES) permit program. The EPA has delegated this authority to the state of New York, which issues State Pollutant Discharge Elimination System (SPDES) permits for discharges to surface water.

Surface water runoff from precipitation can become contaminated with pollutants from industrial process facilities, material storage and handling areas, access roads, or vehicle parking areas. To protect the environment, aquatic resources, and public health, Section 402(p) of the Clean Water Act requires that a storm water discharge permit application containing facility-specific information be submitted to the permitting authority. NYSDEC, the permitting authority in New York State, uses this information to ascertain the potential for pollution from storm water collection and discharge systems and to determine appropriate permitting requirements.

In April 1996 the WVDP obtained storm water characterization data through sampling and analysis and submitted an application for a modification of the SPDES permit to address overall site storm water discharges. The permit application is currently with NYSDEC awaiting final approval.



WVDP SPDES Permit Limit Exceptions 1982-2000

Number of samples collected in 2000: 1,106. Number of analyses: 2,180. Compliance with the SPDES permit limit was 100%.

A permit application covering changes addressing storm water and process water discharges associated with the construction and operation of the new remote-handled waste facility and with the operation of the site's refurbished railroad spur was submitted to NYSDEC in September 2000. The permit modification is not expected until 2002.

SPDES-permitted Outfalls. Point-source liquid effluent discharges to surface waters of New York State are permitted through the New York SPDES program. The WVDP has four SPDES-permitted compliance points for discharges to Erdman Brook and Frank's Creek.

• Outfall 001 (WNSP001) discharges treated wastewater from the low-level waste treatment facility and the north plateau groundwater recovery system. (See North Plateau Groundwater Recovery System [p.ECS-12] and Chapter 3, Groundwater Monitoring, Special Groundwater Monitoring [p. 3-16].) The treated wastewater is held in lagoon 3, sampled and analyzed, and periodically released after notifying NYSDEC. In 2000 the treated wastewater from the low-level waste treatment facility was discharged at WNSP001 in six batches totaling 43.7 million liters (11.5 million gal) for the year. The annual average concentration of radioactivity at the point of release was approximately 34% of the DOE derived concentration guides (DCGs). None of the individual releases exceeded the DCGs. (See *derived concentration guide* in the Glossary and in Chapter 1 [p.1-5].)

• Outfall 007 (WNSP007) discharges the effluent from the site sanitary and industrial wastewater treatment facility, which treats sewage and various nonradioactive wastewaters from physical plant systems (e.g., water plant production residuals and boiler blowdown). The average daily flow at WNSP007 in 2000 was 55,800 liters (14,700 gal).

• Outfall 008 (WNSP008) discharges groundwater and surface water runoff directed from the northeast side of the site's low-level waste treatment facility (LLWTF) lagoon system through a french drain. The average daily flow at WNSP008 in 2000 was 7,110 liters (1,880 gal).

• Monitoring point 116, located in Frank's Creek, represents the confluence of discharge from outfalls 001, 007, and 008; base stream flow; wet weather flows (e.g., surface water runoff); groundwater seepage; and augmentation water (untreated water from the site reservoirs). This is not a physical outfall but a location where the combination of source-flow inputs is used to calculate values for determining compliance with SPDES permit limits dur-

ing discharge of lagoon 3. Before discharge of lagoon 3, sample data for total dissolved solids (TDS) and flow measurements from upstream sources are used to calculate the amount of augmentation water and flow needed to maintain compliance with SPDES-permitted TDS limits.

As shown on the chart on p. ECS-11, the annual number of exceptions to the discharge concentration limits specified in the site's SPDES permit have been substantially reduced, especially when compared to the peak of thirty-five exceptions noted in 1986. In 2000, for the third consecutive year, no exceptions were reported. (See also p.ECS-20.)

In March 2000 NYSDEC conducted its annual facility inspection. At the request of the inspector, the SPDES outfalls, the sanitary and industrial wastewater treatment facility, and the LLWTF were observed. No violations were noted during the inspection.

SPDES permit modifications. In 1999 increasing concentrations of total mercury were observed in process water collected in the low-level waste treatment facility. The source of the mercury was determined to be process water from the liquid waste treatment system evaporator. (The evaporator is used to reduce the volumes of liquid waste generated during processing of high-level radioactive waste.) Negotiations with NYSDEC regarding additional SPDES permit monitoring requirements and limits were initiated in 1999. It is expected that a final SPDES permit that addresses mercury will be issued in 2001.

In March 1996 a SPDES permit application was submitted to NYSDEC to increase the average flow of effluent from the north plateau groundwater recovery system from approximately 9.8 million liters (2.6 million gal) a year to approximately 39.7 million liters (10.5 million gal) a year. (See North Plateau Groundwater Recovery System below.) NYSDEC issued the draft SPDES permit in June 1997 for public comment. A final permit is expected to be issued to the WVDP in 2001.

North Plateau Groundwater Recovery System. In November 1995 the WVDP installed a groundwater recovery system to mitigate the movement of strontium-90 contamination in the groundwater northeast of the process building. Three recovery wells, installed near the leading edge of the groundwater plume, collect contaminated groundwater from the underlying sand and gravel unit. The groundwater is then treated in the new low-level waste treatment facility (LLW2) using ion-exchange to remove strontium-90. After the groundwater is processed, it is discharged to lagoon 4 or 5, near the LLW2. Approximately 83 million liters (22 million gal) of groundwater have been processed through the system since its inception, including about 16 million liters (4.2 million gal) in 2000.

In 1998 the Project began evaluating in-place permeable treatment wall (PTW) technology for treating contaminated groundwater. PTW technology is a passive treatment method, i.e., neither pumps nor a separate water treatment system are used. Rather, contaminants are removed from the groundwater as it flows through a subsurface trench filled with treatment media. Laboratory benchscale tests were initiated in December 1998 to examine this technology for removal of strontium-90 in WVDP groundwater, and a pilot-scale treatment wall was installed in 1999. Since its installation, chemical and water-level data have been collected and continue to be evaluated. Analytical data collected from within the wall indicate that stron-

tium-90 is removed from groundwater entering the wall. Groundwater elevation data suggest that some groundwater is bypassing the PTW. A detailed evaluation of groundwater conditions in and around the pilot PTW began in February 2001.

Petroleum- and Chemical-Product Spill Reporting. The WVDP has a Spill Notification and Reporting Policy to ensure that all spills (see Glossary) are properly managed, documented, and remediated in accordance with applicable regulations. This policy identifies the departmental responsibilities for spill management and the proper spill-control procedures. The policy stresses the responsibility of each employee to notify the main plant operations shift supervisor upon discovery of a spill. This first-line reporting requirement helps to ensure that spills are properly evaluated and managed.

Under a 1996 agreement with NYSDEC regarding petroleum spill-reporting protocol, the WVDP is not required to report spills of petroleum products of 5 gallons or less onto an impervious surface that are cleaned up within two hours of discovery. Petroleum-product spills of 5 gallons or less onto the ground are entered in a monthly petroleum spill log, which is submitted to NYSDEC by the fifteenth day of the following month. Spills of any amount that travel to waters of the state must be reported within two hours to the NYSDEC spill hotline and also are entered in the monthly log. Spills of petroleum products that enter navigable waters of New York State are reported to the National Response Center within two hours of discovery. There were no spills to navigable waters at the WVDP in 2000.

The WVDP also reports spills or releases of hazardous substances in accordance with the reporting requirements of RCRA, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) if a reportable quantity has been exceeded, and the CAA, EPCRA, the CWA, and the Toxic Substances Control Act (TSCA). No chemical spills or releases exceeded reportable quantities and, thus, no reporting during calendar year 2000 was required.

In the event of a spill or release all spills are cleaned up in a timely manner in accordance with the WVDP Spill Notification and Reporting Policy, thereby minimizing any effects on the environment. Debris generated during cleanup is characterized and dispositioned appropriately.

Safe Drinking Water Act (SDWA). The Safe Drinking Water Act requires that each federal agency having jurisdiction over a federally owned or maintained public water system must comply with all federal, state, and local requirements regarding safe drinking water. Compliance with regulations promulgated under the SDWA in the state of New York is overseen by the New York State Department of Health (NYSDOH) through county health departments.

The WVDP obtains its drinking water from surface water reservoirs on the WNYNSC and is considered a non-transient, noncommunity public water supplier. The WVDP's drinking water treatment facility purifies the water by clarification, filtration, and chlorination before it is distributed on-site.

As an operator of a drinking water supply system, the WVDP routinely collects and analyzes drinking water samples to monitor water quality. The results of these analyses are reported to the Cattaraugus County Health Department, which also independently analyzes a sample of WVDP drinking water every month to deter-

mine bacterial and residual chlorine content. Analysis of the microbiological samples collected in 2000 produced satisfactory results and the free chlorine residual measurements taken throughout the distribution system were positive on all occasions, indicating proper disinfection.

The WVDP regularly tests the site's drinking water for lead and copper in accordance with EPA and NYSDOH regulations. NYSDOH regulations allow a facility to reduce sampling from once a year to once every three years if three consecutive annual sampling campaigns produce results below the action level. Because sampling for lead and copper in 1997, 1998, and 1999 indicated that all results were below the action levels for these metals, the next scheduled sampling for lead and copper will be in 2002.

The Cattaraugus County Health Department conducted its annual inspection of the WVDP water supply system on November 8, 2000. No findings or notices of violation were issued.

Toxic Substances Control Act (TSCA). The Toxic Substances Control Act of 1976 regulates the manufacture, processing, distribution, and use of chemicals, including asbestos-containing materials (ACM) and polychlorinated biphenyls (PCBs).

Asbestos-containing materials. The WVDP Asbestos Management Plan update (West Valley Nuclear Services Co. October 26,1999) includes results of a review of the asbestos-management program completed by the WVDP Waste Operations department in January 1999.

In 2000 the WVDP continued to maintain compliance with all TSCA requirements pertaining to asbestos by managing asbestos-containing material (ACM) at the site in accordance with the Asbestos Management Plan. The plan was prepared to ensure compliance with TSCA requirements and includes requirements for limiting worker exposure to ACM and for asbestos-abatement projects, maintenance activities, and periodic surveillance inspections (at least once every three years). The plan also identifies the inventory and status of on-site ACM.

Activities in 2000 included the repair or abatement of damaged/friable ACM, removal of ACM insulation from abandoned lines, removal of nonfriable asbestos duct insulation from the fuel receiving and storage (FRS) ventilation building, and the maintenance of signs and labels to warn workers of asbestos-containing material. All activities associated with ACM are completed by personnel who are certified by the New York State Department of Labor (NYSDOL). WVNS maintains an asbestos-handling license issued by NYSDOL.

PCBs. Because PCBs are regulated as a hazardous waste in New York State, the WVDP continued in 2000 to manage radioactively contaminated PCB waste as mixed waste and nonradioactive PCB waste as hazardous waste. Details concerning PCB-contaminated radioactive waste management, including a description of the waste and proposed treatment technologies and schedules, can be found in section 3.1.5 of the Site Treatment Plan, Fiscal Year 2000 Update (West Valley Nuclear Services Co. October 25, 2000).

To comply with TSCA, all operations associated with PCBs comply with the PCB and PCB-Contaminated Material Management Plan (West Valley Nuclear Services Co., Inc. December 28, 1998). The WVDP also maintains an annual document log that details PCB use and appropriate storage on-site and any changes in storage or disposal status. The WVDP com-

plies with the regulations for the disposal of PCBs, which conditionally allow radioactive and nonradioactive PCB wastes to be stored for more than one year (40 CFR Parts 750 and 761).

National Environmental Policy Act (NEPA). The National Environmental Policy Act of 1969, as amended, establishes a national policy to ensure that protection of the environment is included in federal planning and decision making (Title I). Its goals are to prevent or eliminate potential damage to the environment that could arise from federal legislative actions or proposed federal projects.

Nationwide Management of Waste. In May 1997 DOE Headquarters issued the Final Waste Management Programmatic Environmental Impact Statement (EIS) to evaluate nationwide management and siting alternatives for the treatment, storage, and disposal of five types of radioactive and hazardous waste. The alternatives address waste generated, stored, or buried over the next twenty years at fifty-four sites in the DOE complex.

The Final Waste Management Programmatic EIS was issued with the intent of developing and issuing separate records of decision for each type of waste analyzed. In 1998 the DOE issued records of decision for transuranic and non-wastewater hazardous waste. In 1999 the DOE issued the record of decision for high-level radioactive waste. This decision specifies that the WVDP high-level vitrified waste will remain in storage on-site until it is accepted for disposal at a geologic repository.

On December 10, 1999 the DOE issued its preferred alternative for the management of low-level radioactive waste and mixed low-level waste. Hanford and the Nevada Test Site were identified as the preferred regional disposal sites for these waste types (64 Federal Register 69241). The Federal Register notes that the term "regional" does not impose geographic restrictions on which DOE sites could ship low-level and mixed low-level waste to these disposal sites.

Completion of the WVDP and Closure of the WNYNSC. The DOE and NYSERDA continued efforts in 2000 to develop a preferred alternative for completion of the WVDP and closure or long-term management of the WNYNSC. Late in the summer of 2000 the DOE announced a new approach to reaching its goal for completion of the WVDP: the environmental impact statement decision-making would be separated into two phases by re-scoping the Draft Environmental Impact Statement for Completion of the West Valley Demonstration Project and Closure or Long-term Management of Facilities at the Western New York Nuclear Service Center (DOE-EIS-0226-D).

Re-scoping would allow for two separate environmental impact statements: a WVDP decontamination and waste management EIS and a West Valley site decommissioning and/or long-term stewardship EIS. In this way, actions ready for decision-making could be separated from actions such as site closure or long-term management that would benefit from additional evaluation.

Under this revised EIS strategy, OH/WVDP will focus in the near-term on decontamination and waste management. Waste will be shipped off-site for disposal, and the main process building, the vitrification facility, and the high-level waste tank farm will be decontaminated and placed in a safe condition until they can be decommissioned. Site closure and long-term stewardship issues will become the subject of a new EIS.

Migratory Bird Treaty Act. The WVDP monitors Project activities to ensure continued compliance with the requirements of both the Migratory Bird Treaty Act and the Endangered Species Act. A New York State Fish and Wildlife License allows the WVDP to remove nests of migratory birds as needed to avoid the potential spread of radioactive contamination or to otherwise protect the health and safety of Project employees and visitors. The WVDP's license (DWP00-001) was received from NYSDEC on January 23, 2001 and is effective from January 1, 2001 through December 31, 2001.

Every two years the WVDP updates its information about the potential for federally listed or proposed endangered or threatened species to be in the vicinity of Project activities. This was originally done via correspondence with the U.S. Fish and Wildlife Service in June 1999. Their reply on June 21, 1999, reconfirmed that "except for occasional transient individuals" no plant or animal species protected under the Endangered Species Act were known to exist at the WVDP. An update of the information on the Endangered Species Act list will be requested from the U.S. Fish and Wildlife Service in the spring of 2001.

Current Achievements and Program Highlights

The WVDP's successful high-level waste vitrification program is one of only two such programs operating in the nation.

Phase II Vitrification. Phase II of vitrification, processing the high-level waste residuals (heels) in storage tank 8D-2, continued in 2000. Nine glass canisters were filled during this phase of operation, bringing the total number processed since operations began in 1996 to 254 canisters.

Considerable progress has been made in the development and deployment of radiological instrumentation for remote surveying of the interior surfaces of the high-level waste tanks. This includes installing beta/gamma probes, gamma detectors, and neutron detectors. The instruments are installed through the tank riser openings and remain within the tank for a predetermined period of time. They are then removed for analysis so that the radionuclide content remaining in the tank can be assessed and compared against future characterization goals.

Integrated Safety Management System (ISMS). In August 2000 a self-assessment was conducted to confirm that the WVDP's integrated environmental, safety, and health management system continued to function as verified in the DOE's annual review in February 2000. The WVDP continues to demonstrate its commitment to an all-inclusive approach to safety through its safety programs and through ongoing efforts to strengthen its integrated safety management program by worker involvement in the safety program.

STAR Status. The DOE Voluntary Protection Program (VPP) is based on a program developed by the Occupational Safety and Health Administration (OSHA). The DOE adopted the VPP to recognize superior health and safety performance by contractor management and employees. On May 5, 2000 the WVDP received VPP STAR Status, the highest safety award given within OSHA or the DOE.

U.S. EPA National Environmental Achievement Track. The WVDP was recognized as a top environmental leader in 2000 and was accepted into the EPA's National Environmental Achievement Track. The WVDP was awarded Charter Member status as part of the first group of applicants.

To qualify for the award the WVDP had to demonstrate that it voluntarily has adopted and implemented an environmental management system (EMS), has attained previous specific environmental achievements, has made a commitment to achieve four future goals, has a public outreach program, and has a sustained record of environmental compliance.

Acceptance into the Achievement Track allows the WVDP to use the Achievement Track logo, the EPA's recognition of accomplishments under the Achievement Track program. The WVDP also will be listed on the EPA's National Environmental Performance Track website and other EPA internet sites and will be mentioned in promotional materials related to the program. In December 2000 the EPA held a special award ceremony in Washington, D.C. for all facilities accepted into the program. Representatives from the site's DOE office and WVNS attended the ceremony.

Environmental Management System (EMS). WVNS's environmental management system comprises procedures that provide the basic policy and direction for accomplishing work through proactive management, environmental stewardship, and the integration of appropriate technologies across all Project functions. Environmental management is integrated with other safety management and work planning processes at the WVDP through the integrated environmental, health, and safety management program (ISMS).

The WVNS EMS satisfies the requirements of both the Code of Environmental Management Principles (CEMP) for federal agencies and ISO (International Organization for Standardization) 14001, Environmental Management Systems: Specifications for Guidance and Use, which are the two major frameworks for environmental management systems. The CEMP was developed by the EPA in response to Executive Order 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements. It embodies the principles and underlying performance objectives that are the basis for responsible environmental management. ISO 14001 is an EMS comparable to the CEMP.

Closed Landfill Maintenance. Closure of the on-site nonradioactive construction and demolition debris landfill (CDDL) was completed in August 1986. The landfill area was closed in accordance with NYSDEC requirements for this type of landfill, following a closure plan (Standish 1985) approved by NYSDEC. To meet routine post-closure requirements, the CDDL cover was inspected twice in 2000 and found to be in generally good condition. The grass cover on the clay and soil cap is routinely maintained and cut, and drainage is maintained to ensure that no obvious ponding or soil erosion occurs.

Release of Materials Containing Residual Radioactivity. The release of property containing residual radioactivity from DOE facilities is carefully controlled by DOE guidelines and procedures. In two special memoranda issued in January and July of 2000, the Secretary of Energy placed a moratorium on the release of contaminated materials and on the unrestricted release, for recycling, of metal from radiological areas within DOE facilities. The moratorium will be in place until directives clarifying the release criteria have been developed and implemented. Any transfer that places property (real property, structures, equipment, or scrap metal) containing radioactivity into public use is classified as a type of environmental release. In keeping with DOE initiatives to expand environmental information provided to the public, certain details of transfers of property

containing residual radioactivity are to be included in annual site environmental reports. The information provided should include, among other things, the type of material and the amount of residual radioactivity, the basis for releasing the property for public use (including release limits and when the property was released), the end use and cost savings associated with release of the property, and potential doses to individuals and the potential collective dose to the public associated with each release. The WVDP did not release any property classified per DOE Order 5400.5 as material containing residual radioactive material in 2000. (See also the Release of Property Containing Residual Radioactive Material table on p. ECS-20.)

Flood Protection: Water-Supply Dam Repairs. In 1998 an inspection by NYSDEC of the site's two water-supply reservoir dams and the emergency spillway showed that an area around dam #1 had slumped and, although structurally sound, repairs were needed. Plans and permit applications for the repairs and improvements were filed with NYSDEC and the Corps of Engineers in October 2000. NYSDEC concurred with the plans and the Corps determined that no permit was required. Work began in the fall of 2000 and was completed in spring 2001.

Completion of the WVDP and Closure of the WNYNSC. Although negotiations conducted between the DOE and NYSERDA through January 2001 did not reach agreement on long-term cleanup responsibilities, both parties remain committed to accomplishing important Project-related goals. These include shipping the 125 spent fuel assemblies to Idaho; completing high-level waste vitrification; working with the NRC on decontamination and decommissioning criteria; and completing environmental impact statement analyses to support decisions on facility decontamination, waste management, and site decommissioning and/or long-term stewardship. (See also p.ECS-15.) Other important Project goals include safely managing low-level waste, constructing the remote-handled waste facility, and managing contaminated groundwater on the north plateau.

Project Assessment Activities in 2000

As the primary contractor for the DOE at the WVDP, WVNS maintains a comprehensive review program for proposed and ongoing operations. Assessments are conducted through formal surveillances and informal programs. Formal surveillances monitor compliance with regulations, directives, and DOE Orders.

The informal program is used to identify issues or potential problems that can be corrected on the spot. The local DOE Project office also independently reviews various aspects of the environmental and waste management programs, and in 2000 overall results of the reviews reflected continuing, well-managed environmental programs at the WVDP.

Significant external environmental overview activities in 2000 included inspections by NYSDEC for compliance with RCRA and SPDES and an annual compliance inspection of the WVDP potable water supply system by the Cattaraugus County Health Department. These inspections did not identify any environmental program findings and further demonstrated the WVDP's commitment to protection of the environment.

Compliance Tables

DOE Headquarters uses environmental compliance summary information from sites across the DOE complex to compile national environmental summary reports. The tables on the following pages were prepared to assist in this compilation.

West Valley Demonstration Project 2000 Air Quality Noncompliance Episodes

Permit Type	Facility	Parameter	Date(s) Exceeded	Description / Solutions
EPA NESHAP	All	All	None	None
NYSDEC Air	All	All	None	None

There were no episodes of noncompliance in 2000.

West Valley Demonstration Project 2000 NPDES/SPDES Permit Limit Noncompliance Episodes

Permit Type	Outfall	Parameter	Date(s) Exceeded	Description / Solutions
SPDES	All	All	None	None

There were no episodes of noncompliance in 2000.

Release of Property Containing Residual Radioactive Material

Approved Limit	Rationale	Date of Approval	Type of Material Released	Basis for Release	End Use	Volume of Material Released	Total Activity	Maximum Individual Dose	Collective Dose
NA	NA	NA	None	NA	NA	0	0	0	0

No property containing residual radioactivity was released in 2000.

EPCRA Compliance in 2000

EPCRA 302-303:			
Planning Notification	[ ] Yes	[ ] No	[ ] Not Req.
EPCRA 304:			
EHS Release Notification	[ ] Yes	[ ] No	[ ] Not Req.
EPCRA 311-312:			
MSDS/Chemical Inventory	[ ] Yes	[ ] No	[ ] Not Req.
EPCRA 313:			
TRI Reporting	[ ] Yes	[ ] No	[ ] Not Req.

Reportable Chemicals Above Threshold Planning Quantities Stored at the WVDP in 2000

Anhydrous ammonia
Ferric hydroxide slurry
Hydrogen peroxide solution (35%)
Liquid nitrogen
Lubricating oils
Portland cement
Silicon dioxide
Sodium tetraborate decahydrate
Zinc bromide solution
Diesel fuel #2
Gasoline
Ion-exchange media
Lithium hydroxide
Nitric acid
Potassium hydroxide
Sodium hydroxide
Sulfuric acid

West Valley Demonstration Project Environmental Permits

Permit Name and Number	Agency/Permit Type	Description	2000 Changes	Status
West Valley Demonstration Project Part A Permit Application	NYSDEC	Provides interim status under RCRA for treatment and storage of hazardous waste	None	No expiration date.
Article 19 State Facility Air Permit 90422-00005/00091	NYSDEC	Sitewide permit includes: • 2 boilers • cold chemical solids transfer system • cold chemical vessel vent system • cold chemical vessel dust collection hood • vitrification facility heating, ventilation, and air conditioning (HVAC) system • vitrification off-gas treatment system (melter)	Modification to incorporate all site sources approved 6/01/00.	Effective 6/01/00. No expiration date.
Slurry-fed ceramic melter (modification to WVDP-687-01) process building ventilation	EPA/NESHAP	Slurry-fed ceramic melter radionuclide emissions — main plant stack modified 2/18/97	None	Permit approved 2/18/97. No expiration date. Request to modify submitted to the EPA 8/99.
Vitrification facility HVAC system	EPA/NESHAP	Vitrification facility HVAC system for radionuclide emissions	None	Permit approved 2/18/97. No expiration date.
01-14 building ventilation system (WVDP-187-01)	EPA/NESHAP	Liquid waste treatment system ventilation of radionuclide emissions in the 01-14 building	None	Issued 10/5/87. Modified 5/25/89. No expiration date.

West Valley Demonstration Project Environmental Permits (concluded)

Permit Name and Number	Agency/Permit Type	Description	2000 Changes	Status
Contact size-reduction facility (WVDP-287-01)	EPA/NESHAP	Contact size-reduction and decontamination facility radionuclide emissions	None	Issued 10/5/87. No expiration date.
Supernatant treatment system/Permanent ventilation system (WVDP-387-01)	EPA/NESHAP	Supernatant treatment system ventilation for radionuclide emissions	None	Revised 1/1/97. No expiration date.
Outdoor ventilated enclosures (WVDP-587-01)	EPA/NESHAP	Ten portable ventilation units for removal of radionuclides	None	Issued 12/22/87. No expiration date.
State Pollutant Discharge Elimination System (NY-0000973)	NYSDEC/Water	Covers discharges to surface waters from various on-site sources	Renewed effective 2/1/99. Expires 2/1/04. No other changes.	NYSDEC has prepared a draft permit modification for stormwater discharges and for a groundwater recovery system discharge increase. Permit terms for NYSERDA and DOE responsibilities related to storm water discharges are being negotiated with NYSDEC.
Buffalo Pollutant Discharge Elimination System (00-04-TR096)	Buffalo Sewer Authority/Sanitary sewage and sewage sludge disposal	Permit issued to hauler of waste from the wastewater treatment facility	Renewed 6/30/00.	Hauler must renew permit by 6/30/01.
Fill Discharge Permit (94-973-29(4))	U.S.Army Corps of Engineers/Water	Buttermilk Creek culvert repairs and railroad spur improvements	Not applicable	Issued 4/27/00. Expires 4/27/05.
Freshwaster Wetlands Permit and Water Quality Certification (9-0422-00005/00093)	NYSDEC/Water	Buttermilk Creek culvert repairs and railroad spur improvements	Not applicable	Issued 3/31/00. Expires 4/1/05.
Chemical bulk storage (9-000158)	NYSDEC/ Chemical bulk storage tank	Registration of bulk storage tanks used for listed hazardous chemicals	None	Permit expires 7/5/01. Will renew before expiration.
Petroleum bulk storage (9-008885)	NYSDEC/Petroleum bulk storage tank registration	Registration of bulk storage tanks used for petroleum	None	Registration expires 9/2/01. Will renew before expiration.
Bird depredation license (DWP99-01)	New York State Division of Fish and Wildlife	State license for the removal of inactive nests of migratory birds	Renewed 1/1/01	CY2000 NYS license expired 12/31/00. Received new NYS license for 2001.